Fujitsu recommends Windows® 7.

Data Sheet
Fujitsu CELSIUS M720 Workstation

Datasheet for Red Hat certification

Your "Thoroughbred" Workstation

If you're looking for reliable performance when using demanding applications, the Fujitsu CELSIUS M720 single-processor workstation meets your needs. It can be individually configured, helping you to enhance your productivity. It features best-in-class noise emissions of only 20 dB for a quiet and efficient working environment. Comprehensive ISV certifications ensure your applications run smoothly. Finally, the convenient cold plug access at front simplifies subsequent expansion.

Performance
Higher productivity
- High performance multi-core processor, next generation graphics subsystems, quad-channel memory technology and high-speed hard disk drives

Ergonomics
Noise-reduced system engineered in Germany
- Optimized thermal management, low-noise chassis and silent fans

Reliability
System stability for the complete lifecycle
- High product standards thanks to top-quality components and comprehensive testing in certified in-house laboratories for 24/7 operation

Certification of workstation applications
Stability, compatibility and performance for the main workstation applications
- Comprehensive support for ISV applications and ease of integration into existing IT networks

Expandability
Excellent expandability for future demands
- Increased memory capacities of up to 128 GB

Fujitsu recommends Windows® 7.

Components

Drives	up to 8x 2.5" HDDs or up to 4x 3.5" HDDs or up to 2x 2.5" and 2x 3.5" HDDs
Processor	Intel® Xeon® processor E5-2690 (8 Cores / 16 Threads, 2.90 GHz, up to 3.8 GHz, 20 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2687W (8 Cores / 16 Threads, 3.10 GHz, up to 3.8 GHz, 20 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2680 (8 Cores / 16 Threads, 2.70 GHz, up to 3.5 GHz, 20 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2670 (8 Cores / 16 Threads, 2.60 GHz, up to 3.3 GHz, 20 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2667 (6 Cores / 12 Threads, 2.90 GHz, up to 3.5 GHz, 15 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2665 (8 Cores / 16 Threads, 2.40 GHz, up to 3.1 GHz, 20 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2660 (8 Cores / 16 Threads, 2.20 GHz, up to 3.0 GHz, 20 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2650L (8 Cores / 16 Threads, 1.80 GHz, up to 2.3 GHz, 20 MB, 7.2 GT/s)
	Intel® Xeon® processor E5-2650 (8 Cores / 16 Threads, 2.00 GHz, up to 2.8 GHz, 20 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2643 (4 Cores / 8 Threads, 3.30 GHz, up to 3.5 GHz, 10 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2640 (6 Cores / 12 Threads, 2.50 GHz, up to 3.0 GHz, 15 MB, 7.2 GT/s)
	Intel® Xeon® processor E5-2637 (2 Cores / 4 Threads, 3.00 GHz, up to 3.2 GHz, 5 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-2630L (6 Cores / 12 Threads, 2.00 GHz, up to 2.5 GHz, 15 MB, 6.4 GT/s)
	Intel® Xeon® processor E5-2630 (6 Cores / 12 Threads, 2.30 GHz, up to 2.8 GHz, 15 MB, 7.2 GT/s)
	Intel® Xeon® processor E5-2620 (6 Cores / 12 Threads, 2.00 GHz, up to 2.5 GHz, 15 MB, 7.2 GT/s)
	Intel® Xeon® processor E5-2609 (4 Cores / 8 Threads, 2.40 GHz, 10 MB, 6.4 GT/s)
	Intel® Xeon® processor E5-2603 (4 Cores / 8 Threads, 1.80 GHz, 10 MB, 6.4 GT/s)
	Intel® Xeon® processor E5-1660 (6 Cores / 12 Threads, 3.30 GHz, up to 3.9 GHz, 15 MB, 8.0 GT/s)
	Intel® Xeon® processor E5-1650 (6 Cores / 12 Threads, 3.20 GHz, up to 3.8 GHz, 12 MB)
	Intel® Xeon® processor E5-1620 (4 Cores / 8 Threads, 3.60 GHz, up to 3.8 GHz, 10 MB)
	Intel® Xeon® processor E5-1607 (4 Cores / 8 Threads, 3.00 GHz, 10 MB)
	Intel® Xeon® processor E5-1603 (4 Cores / 8 Threads, 2.80 GHz, 10 MB)
Operating systems	
Operating system	Windows® 7 Professional 64-bit Windows® 7 Home Premium 64-bit
Operating system compatible	Windows® XP Professional x64 Edition Windows® XP Professional Linux
Operating system notes	Red Hat® certification pending Red Hat® certification starting with version 5.8 / 6.2 Novell® certification pending For some configurations third party drivers are currently not available or configuration restrictions may apply.
Memory modules	2 GB (1 module(s) 2 GB) DDR3, ECC, 1600 MHz, PC3-12800
	4 GB (1 module(s) 4 GB) DDR3, ECC, 1600 MHz, PC3-12800
	8 GB (1 module(s) 8 GB) DDR3, ECC, 1600 MHz, PC3-12800

Fujitsu recommends Windows® 7.

Graphics add on cards (optional)	Ultra-high-end 3D: NVIDIA® Quadro® 6000, 6 GB, 448 cores, PCIe x16, 1x DVI-I, 2x DisplayPort, 2x DVI/VGA
	Ultra-high-end 3D: NVIDIA® Quadro® 5000, 2.5 GB, 352 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort, DVI, VGA
	High-end 3D: AMD FirePro™ V7900, 2 GB, 1140 stream processors, PCIe x16, 4 x DisplayPort
	Entry 3D: NVIDIA® Quadro® 400 , 512 MB, 192 cores, PCIe x16, 1x DVI-I, DisplayPort
	High-end 3D: NVIDIA® Quadro® 4000, 2 GB, 256 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: NVIDIA® Quadro® 2000D, 1 GB, 192 cores, PCIe x16, 2x Dual Link DVI-I
	Midrange 3D: NVIDIA® Quadro® 2000, 1 GB, 192 cores, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Midrange 3D: AMD FirePro™ V5900, 2 GB, 800 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Entry 3D: AMD FirePro™ V4900, 1 GB, 480 stream processors, PCIe x16, Dual Link DVI-I, 2x DisplayPort
	Entry 3D: NVIDIA® Quadro® 600, 1 GB, 96 cores, PCIe x16, Dual Link DVI-I, DisplayPort
	Entry 3D: AMD FirePro™ V3900, 1 GB, 480 stream processors, PCIe x16, Dual Link DVI-I, DisplayPort
	Professional 2D: NVIDIA® Quadro® NVS 450, 512 MB, 2 x 8 cores, PCIe x16, 4 x DisplayPort
	Professional 2D: NVIDIA® Quadro® NVS 300, 512 MB, 16 cores, PCIe Gen2 x16, 2x DVI/VGA
	Remote Graphics: CELSIUS RemoteAccess Card, PCIe x1, 2x DVI-I, PCoIP
	GPU computing card: NVIDIA® Tesla™ C2075, 6 GB, 448 cores, PCIe x16, 1x DVI-I
Hard disk drives (internal)	SSD SATA III, 512 GB, 2.5-inch
	SSD SATA III, 256 GB, 2.5-inch
	SSD SATA III, 128 GB, 2.5-inch
	SSD SATA, 256 GB, 2.5-inch, FDE
	SSD SATA, 128 GB, 2.5-inch, FDE
	HDD SATA III, 10000 rpm, 600 GB, 3.5-inch
	HDD SATA III, 10000 rpm, 600 GB, 2.5-inch
	HDD SATA III, 10000 rpm, 300 GB, 3.5-inch
	HDD SATA III, 10000 rpm, 300 GB, 2.5-inch
	HDD SATA III, 7200 rpm, 2000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 1000 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch, business critical
	HDD SATA III, 7200 rpm, 500 GB, 3.5-inch
	HDD SATA III, 7200 rpm, 250 GB, 3.5-inch
	HDD SATA II, 7200 rpm, 2000 GB, 3.5-inch, business critical
	HDD SAS, 15000 rpm, 300 GB, 2.5-inch
	HDD SAS, 10000 rpm, 600 GB, 2.5-inch
	HDD SAS, 10000 rpm, 450 GB, 2.5-inch
	HDD SAS, 10000 rpm, 300 GB, 2.5-inch
Hard disk notes	*Disk imaging software of the customer must be 4k sector size / advanced format ready One Gigabyte equals one billion bytes, when referring to hard disk drive capacity.
Drives (optional)	BD Triple Writer SATA slim (tray)
	Blu-ray Disc™ Triple Writer
	DVD-ROM
	DVD Super Multi
	MCR 24in1 & USB 3.0 front con., 3.5"
	MultiCard Reader 24in1 USB 2.0 3.5"

Interface add on cards/components (optional)	
	WLAN III, 802.11g/Draft-n (Windows only)
	USB 3.0 PCIe x1
	Gigabit Ethernet PCIe x1, DS
	Gigabit Ethernet PCIe x1
	eSATA Interface
	Dual serial card PCIe x1, powered
	Dual serial card PCIe x1
	Dual 1 Gigabit Ethernet PCIe x4
	Dual 10 Gigabit Ethernet PCIe x8

Base unit	CELSIUS M720	CELSIUS M720 power
Mainboard		
Mainboard type	D3128	
Formfactor	ATX	
Chipset	Intel® C602	
Processor socket	Socket R	
Processor quantity maximum	1	
Memory slots	8 DIMM (DDR3) ECC/non-ECC	
Supported capacity RAM (max.)	128 GB	
Memory notes	128 GB of memory will be offered as soon as 16 GB UDIMM memory modules are available. In configurations with 4 GB and more the visible memory may be reduced to approximately 3.5 GB or less (for 32-bit operating systems) and configurations with 8 GB the visible memory may be reduced to approximately 7.5 GB or less (depending on system configuration). Large memory may lead to long boot times. When using a 32-bit operating system the maximum of memory might be 900 MB.	
LAN	Built-in 10/100/1000 MBit/s Intel® 82579 LM	
Audio codec	Conexant CX20642	
Audio features	High Definition Audio	
I/O controller on board		
Serial ATA total	6	
thereof SATA III	2	
SATA RAID support	0, 1, 10, 5	
SAS Controller type	optional upgrade to 4 ports, Intel C604	
SAS RAID support	0, 1, 10	
Interfaces		
Audio: in (rear)	1	
Audio: out (rear)	1	
Audio: in	1	
Audio: out	1	
Internal speakers	1	
USB 2.0 total	11	
USB 3.0 total	2	
USB front	4 (2x USB 3.0)	
USB rear	6	
USB internal	3, thereof 1 type A	
Serial (RS-232)	1 (internal 9 pin)	
Mouse / Keyboard (PS/2)	1 / 1	
Ethernet (RJ-45)	1	
Interface Module notes	Anytime USB charge functionality	

Drive bays		
Drive bays total	12	
2.5-inch bays	8	
3.5-inch internal bays	4	
3.5-inch external bays	2	
5.25-inch external bays	2	
Slots		
PCI-Express 3.0 x4 (mech. x8)	2 x (312 mm) Full height	
PCI-Express 3.0 x16	2 x (312 mm /) Full height	
PCI-Express 2.0 x4 (mech. x16)	1 x (312 mm /) Full height	
PCI (32-bit / 33 MHz)	2 x (312 mm /) Full height	
Electrical values		
Power consumption note	190 W depending on configuration	250 W depending on configuration
Rated voltage range	100 V - 240 V	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz	50 Hz - 60 Hz
Operating voltage range	100 V - 240 V	100 V - 240 V
Operating line frequency range	50 Hz - 60 Hz	50 Hz - 60 Hz
Max. output of single power supply	500 W up to 90% efficiency	800 W up to 90% efficiency
Noise for standard configuration (HDD, ODD, FDD)		
Noise emission	According to ISO9296 (LpAm at bystander position)	According to ISO9296 (LpAm at bystander position)
Noise Operation mode 4: High load	20 dB(A)	20 dB(A)
Noise Operation mode 5: Office applications	20 dB(A)	20 dB(A)
Idle mode	20 dB(A)	20 dB(A)
Office mode	20 dB(A)	20 dB(A)
Noise notes / description	depending on configuration	depending on configuration
Dimensions / Weight / Environmental		
Dimensions (W x D x H)	186 x 481 x 430 mm	
Operating position	Vertical / horizontal	
Weight	18 kg	
Weight notes	Actual weight may vary depending on configuration	
Operating ambient temperature	10 - 35°C	
Operating relative humidity	5 - 85 % (relative humidity)	
Compliance		
Product	CELSIUS M720	CELSIUS M720 Power
Model	ETNA_S-D3128	
Germany	GS depending on configuration	
Europe	CE	
USA/Canada	cCSAus FCC Class B	
Global	RoHS (EU & China) Medical EMC standard IEC60601-1-2 in combination with medical kit Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 WEEE (Waste electrical and electronic equipment) EPEAT® in progress (dedicated regions)	
Japan	VCCI	
Russia	GOST	
South Korea	KCC	
China	CCC (planned)	
Taiwan	BSMI (planned)	
Saudi Arabia	SASO (planned)	

Compliance	
Compliance link	http://globalsp.ts.fujitsu.com/sites/certificates/default.aspx https://sp.ts.fujitsu.com/sites/certificates/
Security	
System protection	Kensington Lock support Eye for padlock Intrusion switch Optional: Integrated cabinet lock
Audit proof protection	Write protect option for the Flash EPROM Boot protection for floppy disk / CD drive and write protection for floppy disk drive Dynamic USB security for full hardware USB protection Control of all USB interfaces Trusted platform module (TPM 1.2) EraseDisk
Access protection	User and supervisor BIOS password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
Additional Software	
Additional software (preinstalled)	Norton Internet Security (incl. Firewall) 60 days version Microsoft® Office Starter: reduced-functionality Word and Excel® only, with advertising. No PowerPoint® or Outlook®. Buy Office 2010 to use the full-featured software.
Additional software (optional)	CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) Drivers & Utilities DVD (DUDVD) Windows® 7 and Windows® XP Nero Essentials (burning software)
Manageability	
Manageability technology	DeskUpdate Driver management iAMT Intel® Active Manageability Technology v7.1 (not activated, not set up)
Manageability software	DeskView Client DeskView Instant BIOS Management DeskView Integration for Symantec Management Platform
DeskView components	Inventory Management BIOS Management Driver Management Security Management Alarm Management
Supported standards	WMI BootP (made4you) PXE WoL (Wake on LAN)
Manageability link	http://ts.fujitsu.com/manageability
Input device / components	
	Optical USB tilt wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse Space Explorer USB Keyboard
Warranty	
Standard Warranty	3 years (depending on country)
Service level	On-site Service (depending on country)
Maintenance and Support Services - the perfect extension	
Recommended Service	5x9, Response Time: Next Business Day
Spare Parts availability	5 years
Service Weblink	http://www.fujitsu.com/fts/services/support

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More information

Fujitsu platform solutions

In addition to Fujitsu CELSIUS M720, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products
www.fujitsu.com/global/services/computing/

Software
www.fujitsu.com/software/

More information

Learn more about Fujitsu CELSIUS M720, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
www.fujitsu.com/fts/CELSIUS

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment.
Using our global know-how, we aim to contribute to the creation of a sustainable environment for future generations through IT.
Please find further information at http://www.fujitsu.com/global/about/environment/

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Contact
FUJITSU Technology Solutions
Website: www.fujitsu.com/fts
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